

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 2

PATENT NO. : 7,732,541

APPLICATION NO.: 10/530,802

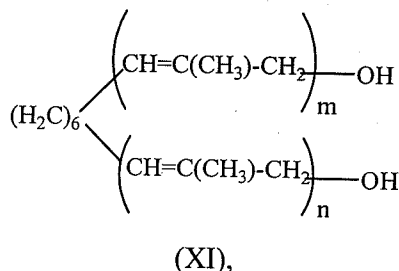
ISSUE DATE : June 8, 2010

INVENTOR(S) : Thierry Le Gall, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Claims 11 and 12 have been omitted in their entirety. Please insert claims 11 and 12 following claim 10, at col. 24, line 40, as follows:

11. Process according to Claim 9, in which the cyclic boron compound is B-thexylborepane and the nucleophilic ylide compound is methallyltriphenylarsonium, by means of which a polymer of formula (XI) is obtained after a step of conversion via the action of aqueous hydrogen peroxide solution in basic medium, the polymer of formula (XI) being defined as:



wherein m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Brinks, Hofer, Gilson & Lione
P.O. Box 110285
Research Triangle Park, NC 27709

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 2

PATENT NO. : 7,732,541

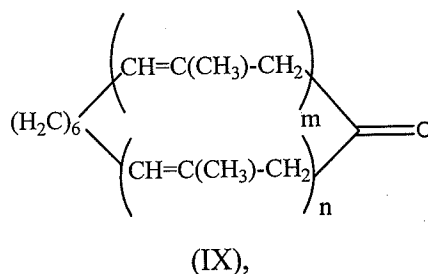
APPLICATION NO.: 10/530,802

ISSUE DATE : June 8, 2010

INVENTOR(S) : Thierry Le Gall, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

12. Process according to Claim 9, in which the cyclic boron compound is B-thexylborepane and the nucleophilic ylide compound is methallyltriphenylarsonium, by means of which a polymer of formula (IX) is obtained after a carbonylation step of conversion, the polymer of formula (IX) being defined as:



wherein m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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P.O. Box 110285
Research Triangle Park, NC 27709

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Thierry Le Gall et al.

Attn.: Certificate of Corrections Branch

Patent No.: 7,732,541

Confirmation No. 4289

Issue Date: June 8, 2010

Title: Polymers Comprising in Their Skeleton an Endo Ethylenic Unsaturation, and
Preparation Processes Therefor

**REQUEST FOR CERTIFICATE OF CORRECTION
UNDER 37 C.F.R. 1.322 AND REQUEST FOR EXPEDITED ISSUANCE OF
CERTIFICATE OF CORRECTION**

Attn: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please issue a Certificate of Correction for the above-identified patent to correct the errors listed on the accompanying Form PTO/SB/44. This request is being made pursuant to 35 U.S.C. § 254, since the errors are attributable to the Office.

As documentation supporting the assertion that the correction request was incurred through the fault of the Office, enclosed is a copy of a Supplemental Amendment under 37 C.F.R. § 1.312 filed October 21, 2009, a copy of a Response to Rule 312 Communication mailed October 23, 2009, whereby the Examiner has indicated the Amendment has been entered, and a copy of a Supplemental Notice of Allowability mailed May 18, 2010, whereby the Examiner accurately indicated that claims 32 and 33 are allowed.

The Patentee submits that the accompanying documentation unequivocally supports the assertion that the errors were made on the part of the Office. The Patentee respectfully requests that the Request for Certificate of Correction be reviewed and a Certificate of Correction be expeditiously issued presenting claims 32 and 33 (renumbered as claims 11 and 12) as requested.

Although it is believed that no fee is necessary, the Commissioner is hereby authorized to charge any fees required to Deposit Account No. 23-1925.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

Date: July 9, 2010

By: Daniel A. Rubé

Daniel A. Rubé
Registration No. 53,536

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Thierry LE GALL

Mail Stop: Issue Fee

Application No.: 10/530,802

Group Art Unit: 1796

Filing or 371(c) Date: September 2, 2005

Examiner: Robert D. Harlan

Title: Polymers Comprising in Their
Skeleton an Endo Ethylenic
Unsaturation, and Preparation
Processes Therefor

Confirmation No.: 4289

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. §1.312

Mail Stop Issue Fee
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please enter the following amendment, which does not require any additional search and does not add any new matter.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 12 of this paper.

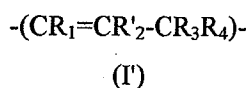
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (Cancelled)

18. (Previously presented) Process for preparing a polymer whose skeleton comprises a sequence of units of formula (I'):



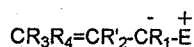
in which:

- R₁ represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- R'₂ represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- the radicals R₃ and R₄, which may be identical or different, correspond to the same definition as R₁, on condition that at least one of the radicals R₃ and R₄ represents, in each unit, a hydrogen atom;

the said radicals R₁, R'₂, R₃ and R₄ possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups,

the said process comprising a step consisting in reacting, in suitable amount:

-at least one ylide compound corresponding to formula (2) below:



(2)

in which the radicals R_1 , R'_2 , R_3 and R_4 correspond to the same definition as that given above, E being a leaving group,

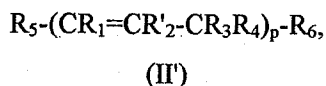
- with a trivalent boron compound, comprising at least one group capable of migrating, so as to obtain the said sequence of units of formula (I') as defined above.

19. (Original) Process according to Claim 18, in which the group capable of migrating is a group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, with the exception of branched alkyl groups linked to boron via a tertiary carbon.

20. (Previously Presented) Process according to Claim 18, in which the leaving group E is chosen from N_2 , $S(R)_2$, $S(O)(R)_2$, $N(R)_3$, $AsAr_3$ and PAr_3 , in which Ar represents a phenyl group optionally substituted with methyl or methoxy groups and R is an alkyl group.

21. (Previously Presented) Process according to Claim 18, in which the ylide compound is methallyltriphenylarsonium ylide.

22. (Previously presented) Process for preparing a polymer corresponding to formula (II') below:

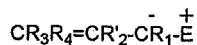


- wherein;
- R_1 represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- R'_2 represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;

- the radicals R_3 and R_4 , which may be identical or different, correspond to the same definition as R_1 , on condition that at least one of the radicals R_3 and R_4 represents, in each unit, a hydrogen atom;

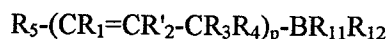
the said radicals R_1 , R'_2 , R_3 and R_4 possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups, and R_5 , R_6 and p wherein R_5 represents a linear or branched alkyl group containing from 1 to 20 carbon atoms, a cycloalkyl group containing from 3 to 20 carbon atoms or an aryl group containing from 6 to 20 carbon atoms, R_6 represents an -OH, primary amine, thiol -SH, halogen or -CHO group, a group derived from -CHO, an ester group, an optionally substituted amide group or an azide group - N_3 , and p is an integer ranging from 4 to 10 000, the said process comprising a step of reacting, in suitable amount:

- a boron compound of formula (1) $R_5-BR_{11}R_{12}$ with R_5 having the same definition as above and representing the group capable of migrating, R_{11} and R_{12} , which may be identical or different, possibly:
 - representing a branched alkyl group linked to the boron via a tertiary carbon containing from 4 to 20 carbon atoms, an alkoxy group containing from 1 to 20 carbon atoms or an aryloxy group containing from 1 to 20 carbon atoms; or
 - together forming a group -O-X-O-, in which X is a linear or branched alkylenediyl group containing from 2 to 6 carbon atoms
- with at least one allylic nucleophilic ylide compound of formula (2) as defined below,



(2)

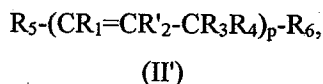
E being a leaving group, by means of which an intermediate of formula (XII) below is obtained:



(XII)

the said process also comprising a step of converting the boron-based group into a suitable group R_6 , by means of which the polymer of formula (II') defined above is obtained.

23. (Previously presented) Process for preparing a polymer corresponding to formula (II') below:

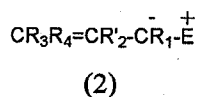


wherein:

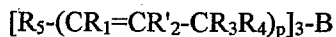
- R_1 represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- R'_2 represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- the radicals R_3 and R_4 , which may be identical or different, correspond to the same definition as R_1 , on condition that at least one of the radicals R_3 and R_4 represents, in each unit, a hydrogen atom;

the said radicals R_1 , R'_2 , R_3 and R_4 possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups, and R_5 , R_6 and p wherein R_5 represents a linear or branched alkyl group containing from 1 to 20 carbon atoms, a cycloalkyl group containing from 3 to 20 carbon atoms or an aryl group containing from 6 to 20 carbon atoms, R_6 represents an -OH, primary amine, thiol -SH, halogen or -CHO group, a group derived from -CHO, an ester group, an optionally substituted amide group or an azide group -N₃, and p is an integer ranging from 4 to 10 000, the said process comprising a step of reacting, in suitable amount, a boron compound of formula $(R_5)_3-B$ with R_5 having the same definition as that given above,

with at least one allylic nucleophilic ylide compound of formula (2) as defined below,



E being a leaving group, by means of which an intermediate of formula (XIII) below is obtained:

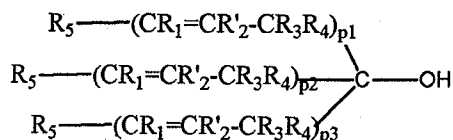


(XIII)

the said process also comprising a step of converting the boron-based group into a suitable group R_6 , by means of which the polymer of formula (II') defined above is obtained.

24. (Previously presented) Process according to Claim 23, in which the boron compound has the formula Bu_3B and the nucleophilic ylide compound is methallyltriphenylarsonium, by means of which the polymer of Claim 7 is obtained after a final step of conversion by treatment with aqueous hydrogen peroxide solution in basic medium.

25. (Previously presented) Process for preparing the polymer corresponding to the following formula:

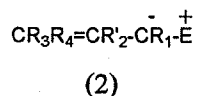


- the radicals R_5 , which may be identical or different, wherein R_5 represents a linear or branched alkyl group containing from 1 to 20 carbon atoms, a cycloalkyl group containing from 3 to 20 carbon atoms or an aryl group containing from 6 to 20 carbon atoms, R_1 , R'_2 , R_3 and R_4 being defined as follows:
- R_1 represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- R'_2 represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon

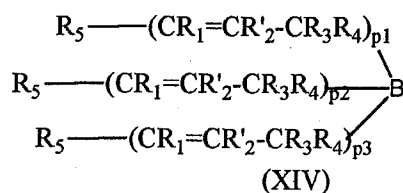
atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;

- the radicals R_3 and R_4 , which may be identical or different, correspond to the same definition as R_1 , on condition that at least one of the radicals R_3 and R_4 represents, in each unit, a hydrogen atom;

the said radicals R_1 , R'_2 , R_3 and R_4 possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups, and p_1 , p_2 and p_3 , which may be identical or different, being integers ranging from 2 to 5000, the said process comprising a step of reacting, in suitable amount, a boron compound of formula $(R_5)_3-B$ with at least one allylic nucleophilic ylide compound of formula (2) as defined below,

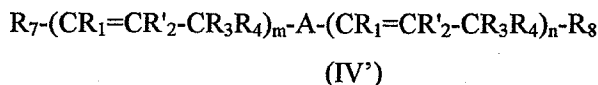


E being a leaving group, by means of which an intermediate of formula (XIV) below is obtained:



the said process also comprising a step of converting the boron-based group into a C-OH group by treatment of the intermediate compound (XIV) by heating in the presence of carbon monoxide, followed by a treatment with aqueous hydrogen peroxide solution in basic medium.

26. (Previously presented) Process for preparing a polymer of formula (IV') below:



with R_1 , R'_2 , R_3 and R_4 defined as follows,

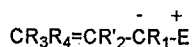
- R_1 represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups

containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;

- R'₂ represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- the radicals R₃ and R₄, which may be identical or different, correspond to the same definition as R₁, on condition that at least one of the radicals R₃ and R₄ represents, in each unit, a hydrogen atom;

the said radicals R₁, R'₂, R₃ and R₄ possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups, and

R₇, R₈, A, m and n wherein A represents a C=O group, a CO derivative or -CHOH group, and the radicals R₇ and R₈, which may be identical or different, represent a linear or branched alkyl group containing from 1 to 20 carbon atoms, a cycloalkyl group containing from 3 to 20 carbon atoms or an aryl group containing from 6 to 20 carbon atoms, m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000, the said process comprising the reaction of a boron compound of formula (6) R₇-BR₈R₁₃ with R₇ and R₈ having the same definition as that given above, R₁₃ being a branched alkyl group linked to the boron via a tertiary carbon containing from 4 to 20 carbon atoms, or an alkoxy or aryloxy group containing from 1 to 20 carbon atoms, with at least one allylic nucleophilic ylide compound of formula (2):



(2)

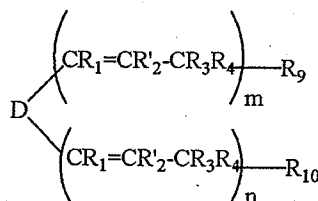
E being a leaving group, by means of which a derivative of formula (XV) is obtained:



(XV)

followed by a reaction for conversion of the group BR₁₃ into a suitable group A.

27. (Previously presented) Process for preparing a polymer of formula (VII') below:



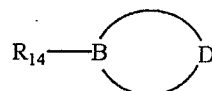
(VII')

with the radicals R₁, R'₂, R₃ and R₄ defined as follows:

- R₁ represents a hydrogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- R'₂ represents a hydrogen or halogen atom or a hydrocarbon-based group chosen from linear or branched alkyl groups containing from 1 to 20 carbon atoms, cycloalkyl groups containing from 3 to 8 carbon atoms, alkoxy groups containing from 1 to 20 carbon atoms, aryl groups containing from 6 to 20 carbon atoms and aryloxy groups containing from 6 to 20 carbon atoms;
- the radicals R₃ and R₄, which may be identical or different, correspond to the same definition as R₁, on condition that at least one of the radicals R₃ and R₄ represents, in each unit, a hydrogen atom;

the said radicals R₁, R'₂, R₃ and R₄ possibly comprising, when they represent a hydrocarbon-based group, one or more substituents chosen from halogen groups, alkyl groups of 1 to 20 carbon atoms, alkoxy groups of 1 to 20 carbon atoms, aryl groups of 6 to 20 carbon atoms, aryloxy groups of 6 to 20 carbon atoms and amino groups,

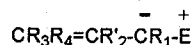
R₉, R₁₀, D, m and n wherein the radicals R₉ and R₁₀, which may be identical or different, represent an OH, NH₂, SH, optionally substituted amide or -CHO group, a group derived from -CHO, an ester group, an optionally substituted amide group or an azide group -N₃;
 -or R₉ and R₁₀ together form a -C(=O)- group, a group derived from CO or a -CHOH- group;
 - D represents a linear or branched alkylenediyl group containing from 4 to 20 carbon atoms, possibly comprising in its chain one or more heteroatoms chosen from oxygen, sulfur and nitrogen, m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000,
 the said process comprising a step of reacting a cyclic boron compound of formula (7):



(7)

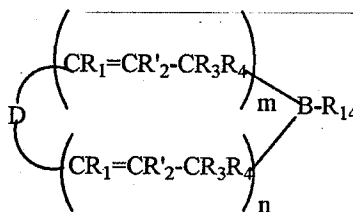
R_{14} representing a group chosen from branched alkyl groups linked to boron via a tertiary carbon containing from 4 to 20 carbon atoms, or alkoxy or aryloxy groups containing from 1 to 20 carbon atoms,

with at least one nucleophilic ylide compound of formula (2):



(2)

E being a leaving group, in order to obtain a derivative of formula (XVI):



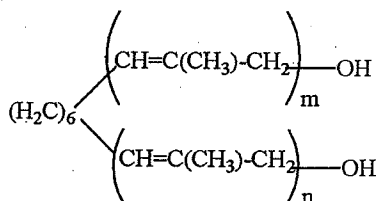
(XVI)

followed by a step of conversion of the group BR_{14} into suitable groups R_9 and R_{10} .

28-30. (Cancelled)

31. (Previously Presented) Process according to Claim 19, in which the leaving group E is chosen from N_2 , $S(R)_2$, $S(O)(R)_2$, $N(R)_3$, $AsAr_3$ and PAr_3 , in which Ar represents a phenyl group optionally substituted with methyl or methoxy groups and R is an alkyl group.

32. (New) Process according to Claim 27, in which the cyclic boron compound is B-thexylborepane and the nucleophilic ylide compound is methallyltriphenylarsonium, by means of which a polymer of formula (XI) is obtained after a step of conversion via the action of aqueous hydrogen peroxide solution in basic medium, the polymer of formula (XI) being defined as:



wherein m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000.

$$\begin{array}{c} \text{(H}_2\text{C)}_6 \\ \diagup \quad \diagdown \\ \left(\text{CH}=\text{C}(\text{CH}_3)-\text{CH}_2 \right)_m \\ \diagdown \quad \diagup \\ \left(\text{CH}=\text{C}(\text{CH}_3)-\text{CH}_2 \right)_n \end{array} \quad \text{C}=\text{O}$$

wherein m is an integer ranging from 2 to 5000 and n is an integer ranging from 2 to 5000.

REMARKS

Claims 18-27 and 31-33 will be pending in the present application upon acceptance of these amendments. Claims 1-17 and 28-30 were previously cancelled. An Amendment under 37 CFR § 312 ("Amendment") was filed by Applicants on September 11, 2009, and a Response to Rule 312 Communication was mailed by the Patent Office on October 20, 2009. The Amendment was not accepted because claims 28 and 29 were previously cancelled and thus could not be amended. Amendments to these claims to remove dependencies to cancelled claims should have been entered as new claims. Accordingly, new claims 32 and 33 are being submitted herewith. Pursuant to a telephone conversation with Examiner Harlan on October 21, 2009, new claims 32 and 33 will be entered and will be allowed. Accordingly, claims 18-27 and 31-33 are considered to be allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

Date: October 21, 2009

By: /Allyn B. Rhodes/
Allyn B. Rhodes
Registration No. 56,745

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Phone: 919.481.1111

724778



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,802

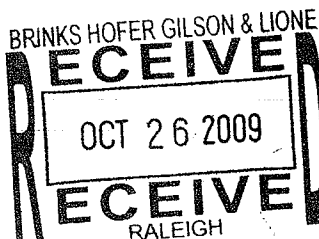
09/02/2005

Thierry Le Gall

13777-42

4289

45473 7590 10/23/2009
BRINKS, HOFER, GILSON & LIONE
P.O. BOX 1340
MORRISVILLE, NC 27560



EXAMINER

HARLAN, ROBERT D

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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10/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DOCKETED

10/26/09 du

Response to Rule 312 Communication

Application No.

10/530,802

Applicant(s)

LE GALL ET AL.

Examiner

Robert D. Harlan

Art Unit

1796

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

1. ☒ The amendment filed on 21 October 2009 under 37 CFR 1.312 has been considered, and has been:

a) ☒ entered.

b) ☐ entered as directed to matters of form not affecting the scope of the invention.

c) ☐ disapproved because the amendment was filed after the payment of the issue fee.

Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

d) ☐ disapproved. See explanation below.

e) ☐ entered in part. See explanation below.

/David Wu/
Supervisory Patent Examiner, Art Unit 1796

/Robert D. Harlan/
Primary Examiner
Art Unit: 1796



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,802	09/02/2005	Thierry Le Gall	13777-42	4289

45473 7590 05/18/2010
BRINKS, HOFER, GILSON & LIONE
P.O. BOX 1340
MORRISVILLE, NC 27560

EXAMINER

HARLAN, ROBERT D

ART UNIT PAPER NUMBER

1796

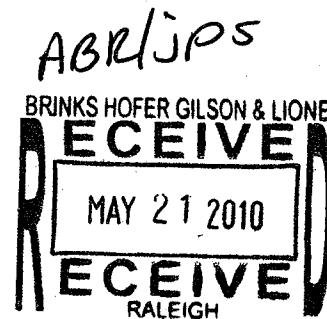
MAIL DATE DELIVERY MODE

05/18/2010

PAPER

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The time period for reply, if any, is set in the attached communication.



DOCKETED
5/21/10 lsg

**Supplemental
Notice of Allowability**

Application No.

10/530,802

Examiner

Robert D. Harlan

Applicant(s)

LE GALL ET AL.

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 10/21/2009.
2. ☒ The allowed claim(s) is/are 18-23, 25-27 and 31-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

Please cancel claims 24 for depending upon an earlier canceled claim 7.

Allowable Subject Matter

3. Claims 18-23, 25-27 and 31-33 are allowed.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (571) 272-1102. The examiner can normally be reached on Mon-Thu, 10 AM - 8 PM.

Art Unit: 1796

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 273-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert D. Harlan/
Primary Examiner
Art Unit 1796

rdh